## Subject Index for Volume 43, Materials Evaluation

ASNT's Role in Certification, R. McGuire, No. 5, p 492 Acoustic Emission Monitoring of a Filament-Wound Com-

posite Rocket Motor Case during Hydroproof (Technical Note), E. v. K. Hill and T. J. Lewis, No. 7, p 859

Acoustic Emission Source Location System, A Simple and Effective (Technical Note), M. Barsky and N. N. Hsu, No. 1, p 108

Acoustic Emission Testing (1961-72), Necessity: The Mother of (NDT—The Yesteryears), A. T. Green, No. 6, p 600

Acoustic Emission during Quasi-static Loading-Unloading Cycles of Filament-Wound Graphite-Epoxy Laminate Coupons, Monitoring, J. Awerbuch, M. R. Gorman, and M. Madhukar, No. 6, p 754

Acoustic Emission during Deformation and Fracture of Three Naval Alloy Steels, J. T. Glass and R. E. Green, Jr., No. 7,

p 864

Acoustic Emission in the Machine Tool Industry, S. Vahaviolos, No. 1, p 44

Acoustic Emission, Inspection of Composite Rocket Motor Cases Using, D. J. McNally, No. 6, p 728

Adhesion Degree in Layered Joints, Ultrasonic Evaluation of the, A. Pilarski, No. 6, p 765

Aerospace Radiography—The Last Three Decades (Lester Honor Lecture), D. J. Hagemaier, No. 10, p 1262

Air Conditioner Tubing, Recent Developments in the Eddy Current Examination of, A. G. Julier, No. 13, p 1655

Aircraft Corrosion and Detection Methods, D. J. Hagemaier, A. H. Wendelbo, Jr., and Y. Bar-Cohen, No. 4, p 426

Aircraft Skins, General Application of Eddy Current Instruments to Detect and Measure Corrosion in, J. Pellicer, No. 12, p 1542

Aircraft, In-Service Nondestructive Inspection of Fighter and Attack, R. J. Lord, No. 6, p 733

Alloy Steels, Acoustic Emission during Deformation and Fracture of Three Naval, J. T. Glass and R. E. Green, Jr., No. 7, p 864

Alloys Used as Ultrasonic Couplants at High Temperature, Low-Melting, M. A. Mahmoud, No. 2, p 196

Alternative Philosophy and Requirements for Certifying NDT Level III Personnel (Opinion Paper), J. C. Spanner, Sr., No. 11, p 1392

Alternative for the Educational Growth of the NDT Technician, An (Robert B. Oliver Scholarship Paper), M. T. Getzke, No. 9, p 1090

Aluminum, Amplitude Distribution Analysis for b-Value-Relationship to the Plasticity of 7075-T6, A. L. Phillips, V. G. Godinez, and S. W. Stafford, No. 4, p 420

America's Past, Nondestructive Testing Sheds Light on Preserving, C. M. Berntson, No. 10, p 1180

Amplitude Distribution Analysis for b-Value Relationship to the Plasticity of 7075-T6 Aluminum, A. L. Phillips, V. G. Godinez, and S. W. Stafford, No. 4, p 420 Analysis of the Ultrasonic Frequency Response for Flaw Detection: A Technical Review (Technical Note), A. Sinclair, No. 1, p 105

Analytical Ultrasonics for Evaluation of Composite Material Response, E. G. Henneke, II, and J. C. Duke, Jr., No. 6, p 740

Application of Homomorphic Signal Processing to Stress Wave Factor Analysis, H. Karagülle, J. H. Williams, Jr., and S. S. Lee, No. 11, p 1446

Arctic Petroleum Gathering Lines, Near Real-Time Radiologic Corrosion Monitoring of (Technical Note), P. W. Lott and J. Lott, No. 4, p 408

Attenuation and Fracture Toughness in Type 403 Stainless Steel, On the Relation between Ultrasonic, F. Nadeau, J. F. Bussière, and G. Van Drunen, No. 1, p 101

Attenuation, Ultrasonic, E. R. Generazio, No. 8, p 995

Automated Eddy Current Hole Measurements, E. J. Chern, No. 13, p 1644

Ballistics, Flash X-Radiography in, M. Held, No. 9, p 1104 Beryllium-window X-ray Units, A Quick and Accurate Method for the Selection of Filters for Use with (Back to Basics), D. McBride, No. 1, p 24

Boiler Inspection, 1866-1947, The Development of (NDT— The Yesteryears), P. O. Moore, No. 7, p 800

Boiler Waterwall Tubes, Inspection for Hydrogen Damage in (NDT Solution), G. A. Lamping, No. 10, p 1164

Brick and Concrete Tunnels, FM Radar for Inspecting, O. Tranbarger, No. 10, p 1254

Brief Look at the Low-energy Radiography of Composite Materials, A (Back to Basics), G. L. Becker, No. 6, p 596

Calculator Programs for Ultrasonic Technicians, Three New (Notes on Basics), A. M. Wenzig, Jr., No. 9, p 1064 Calibration Using the IIW Block, Indirect Shear-Wave Distance (Back to Basics), W. S. Burkle, No. 11, p 1374

Capitol, Radiography Aids Renovation of, No. 10, p 1148
 Carbon Steel Tubing, Examination of (NDT Solution), S.
 Rowland, No. 11, p 1382

Carbon-Epoxy Composites, Ultrasonic Inspection of, D. J. Hagemaier and R. H. Fassbender, No. 5, p 556

Ceramics, Microradiography to Characterize Structural, H. Berger and D. Kupperman, No. 2, p 201

Certification around the World, G. Wheeler, No. 10, p 1198 Certification, ASNT's Role in, R. McGuire, No. 5, p 492

Certifying NDT Level III Personnel, Alternative Philosophy and Requirements for (Opinion Paper), J. C. Spanner, Sr., No. 11, p 1392

Characterization of EDM Notches and Real Fatigue Cracks in Flat Surfaces Using the Uniform Field Eddy Current Technique, E. Smith, No. 13, p 1640

Characterization of an Interference Fit, Ultrasonic, G. Mott and B. J. Taszarek, No. 8, p 990

Cladding on Uranium under Conditions of Varying Lift-off,

## Subject Index for Volume 43, Materials Evaluation

ASNT's Role in Certification, R. McGuire, No. 5, p 492 Acoustic Emission Monitoring of a Filament-Wound Com-

posite Rocket Motor Case during Hydroproof (Technical Note), E. v. K. Hill and T. J. Lewis, No. 7, p 859

Acoustic Emission Source Location System, A Simple and Effective (Technical Note), M. Barsky and N. N. Hsu, No. 1, p 108

Acoustic Emission Testing (1961-72), Necessity: The Mother of (NDT—The Yesteryears), A. T. Green, No. 6, p 600

Acoustic Emission during Quasi-static Loading-Unloading Cycles of Filament-Wound Graphite-Epoxy Laminate Coupons, Monitoring, J. Awerbuch, M. R. Gorman, and M. Madhukar, No. 6, p 754

Acoustic Emission during Deformation and Fracture of Three Naval Alloy Steels, J. T. Glass and R. E. Green, Jr., No. 7,

p 864

Acoustic Emission in the Machine Tool Industry, S. Vahaviolos, No. 1, p 44

Acoustic Emission, Inspection of Composite Rocket Motor Cases Using, D. J. McNally, No. 6, p 728

Adhesion Degree in Layered Joints, Ultrasonic Evaluation of the, A. Pilarski, No. 6, p 765

Aerospace Radiography—The Last Three Decades (Lester Honor Lecture), D. J. Hagemaier, No. 10, p 1262

Air Conditioner Tubing, Recent Developments in the Eddy Current Examination of, A. G. Julier, No. 13, p 1655

Aircraft Corrosion and Detection Methods, D. J. Hagemaier, A. H. Wendelbo, Jr., and Y. Bar-Cohen, No. 4, p 426

Aircraft Skins, General Application of Eddy Current Instruments to Detect and Measure Corrosion in, J. Pellicer, No. 12, p 1542

Aircraft, In-Service Nondestructive Inspection of Fighter and Attack, R. J. Lord, No. 6, p 733

Alloy Steels, Acoustic Emission during Deformation and Fracture of Three Naval, J. T. Glass and R. E. Green, Jr., No. 7, p 864

Alloys Used as Ultrasonic Couplants at High Temperature, Low-Melting, M. A. Mahmoud, No. 2, p 196

Alternative Philosophy and Requirements for Certifying NDT Level III Personnel (Opinion Paper), J. C. Spanner, Sr., No. 11, p 1392

Alternative for the Educational Growth of the NDT Technician, An (Robert B. Oliver Scholarship Paper), M. T. Getzke, No. 9, p 1090

Aluminum, Amplitude Distribution Analysis for b-Value-Relationship to the Plasticity of 7075-T6, A. L. Phillips, V. G. Godinez, and S. W. Stafford, No. 4, p 420

America's Past, Nondestructive Testing Sheds Light on Preserving, C. M. Berntson, No. 10, p 1180

Amplitude Distribution Analysis for b-Value Relationship to the Plasticity of 7075-T6 Aluminum, A. L. Phillips, V. G. Godinez, and S. W. Stafford, No. 4, p 420 Analysis of the Ultrasonic Frequency Response for Flaw Detection: A Technical Review (Technical Note), A. Sinclair, No. 1, p 105

Analytical Ultrasonics for Evaluation of Composite Material Response, E. G. Henneke, II, and J. C. Duke, Jr., No. 6, p 740

Application of Homomorphic Signal Processing to Stress Wave Factor Analysis, H. Karagülle, J. H. Williams, Jr., and S. S. Lee, No. 11, p 1446

Arctic Petroleum Gathering Lines, Near Real-Time Radiologic Corrosion Monitoring of (Technical Note), P. W. Lott and J. Lott, No. 4, p 408

Attenuation and Fracture Toughness in Type 403 Stainless Steel, On the Relation between Ultrasonic, F. Nadeau, J. F. Bussière, and G. Van Drunen, No. 1, p 101

Attenuation, Ultrasonic, E. R. Generazio, No. 8, p 995

Automated Eddy Current Hole Measurements, E. J. Chern, No. 13, p 1644

Ballistics, Flash X-Radiography in, M. Held, No. 9, p 1104 Beryllium-window X-ray Units, A Quick and Accurate Method for the Selection of Filters for Use with (Back to Basics), D. McBride, No. 1, p 24

Boiler Inspection, 1866-1947, The Development of (NDT— The Yesteryears), P. O. Moore, No. 7, p 800

Boiler Waterwall Tubes, Inspection for Hydrogen Damage in (NDT Solution), G. A. Lamping, No. 10, p 1164

Brick and Concrete Tunnels, FM Radar for Inspecting, O. Tranbarger, No. 10, p 1254

Brief Look at the Low-energy Radiography of Composite Materials, A (Back to Basics), G. L. Becker, No. 6, p 596

Calculator Programs for Ultrasonic Technicians, Three New (Notes on Basics), A. M. Wenzig, Jr., No. 9, p 1064 Calibration Using the IIW Block, Indirect Shear-Wave Distance (Back to Basics), W. S. Burkle, No. 11, p 1374

Capitol, Radiography Aids Renovation of, No. 10, p 1148
 Carbon Steel Tubing, Examination of (NDT Solution), S.
 Rowland, No. 11, p 1382

Carbon-Epoxy Composites, Ultrasonic Inspection of, D. J. Hagemaier and R. H. Fassbender, No. 5, p 556

Ceramics, Microradiography to Characterize Structural, H. Berger and D. Kupperman, No. 2, p 201

Certification around the World, G. Wheeler, No. 10, p 1198 Certification, ASNT's Role in, R. McGuire, No. 5, p 492

Certifying NDT Level III Personnel, Alternative Philosophy and Requirements for (Opinion Paper), J. C. Spanner, Sr., No. 11, p 1392

Characterization of EDM Notches and Real Fatigue Cracks in Flat Surfaces Using the Uniform Field Eddy Current Technique, E. Smith, No. 13, p 1640

Characterization of an Interference Fit, Ultrasonic, G. Mott and B. J. Taszarek, No. 8, p 990

Cladding on Uranium under Conditions of Varying Lift-off,

Two-Frequency Eddy Current Instrument for Measuring the Thickness of Zircaloy, J. M. Prince, L. D. Reid, and D.

L. Lessor, No. 12, p 1562

Codes and Standards for Radiographic Inspection and Experimental and Theoretical Studies on Unsharpness and Sensitivity Requirements, Comparison of, H. Dölle and K. Lemmer, No. 2, p 188

Color Vision Testing-Who Needs It? (Back to Basics), W. H.

Bailey, No. 10, p 1194

Comparison of Codes and Standards for Radiographic Inspection and Experimental and Theoretical Studies on Unsharpness and Sensitivity Requirements, H. Dölle and K. Lemmer, No. 2, p 188

Composite Material Inspection, Ultrasonic Wave Propagation Principles in (Back to Basics), J. L. Rose, No. 5, p 481

Composite Material Response, Analytical Ultrasonics for Evaluation of, E. G. Henneke, II, and J. C. Duke, Jr., No. 6, p 740

Composite Materials, A Brief Look at the Low-energy Radiography of (Back to Basics), G. L. Becker, No. 6, p 596

Composite Materials, Physically Based Ultrasonic Feature Mapping for Anomaly Classification in, J. B. Nestleroth, J. L. Rose, M. Bashyam, and K. Subramanian, No. 5, p 541

Composite Materials, Promising Quantitative Nondestructive Evaluation Techniques for, J. H. Williams, Jr., and S. S. Lee, No. 5, p 561

Composite Rocket Motor Cases Using Acoustic Emission, In-

spection of, D. J. McNally, No. 6, p 728

Composite Rocket Motor Case during Hydroproof, Acoustic Emission Monitoring of a Filament-Wound (Technical Note), E. v. K. Hill and T. J. Lewis, No. 7, p 859

Composite Tubular Parts, Ultrasonic and Thermographic Methods for Nondestructive Evaluation of, A. J. Rogovsky, No. 5, p 547

Composites (Back to Basics), F. A. Iddings, No. 5, p 480

Composites Using the Automated Ultrasonic Scanning System (AUSS), Inspection of, T. S. Jones, No. 6, p 746 Composites, High-Resolution Imaging of Microcracks in, T. J.

Moran, R. L. Crane, and R. J. Andrews, No. 5, p 536 Composites, Prototype of an In-Service Inspection System (ISIS) for, F. H. Chang, J. R. Bell, J. L. Brown, and R. W.

Haile, No. 9, p 1117 Composites, Ultrasonic Inspection of Carbon-Epoxy, D. J. Ha-

gemaier and R. H. Fassbender, No. 5, p 556 Concrete Tunnels, FM Radar for Inspecting Brick and, O.

Tranbarger, No. 10, p 1254

Contact Ultrasonic Testing, Magnetic Aids in (Notes on Basics), C. S. Hendzel, No. 9, p 1062

Correlation Methods, Measurement of Ultrasonic Velocity Using Phase-Slope and Cross-, D. R. Hull, H. E. Kautz, and A. Vary, No. 11, p 1455

Corroded Materials, Inspection of (NDT Solution), A. S. Birring, No. 9, p 1054

Corroded Objects, Gamma-Radiography of High-Temperature and (Technical Note), R. P. Krolicki, No. 8, p 1008

Corrosion Monitoring of Arctic Petroleum Gathering Lines, Near Real-Time Radiologic (Technical Note), P. W. Lott and J. Lott, No. 4, p 408

Corrosion and Detection Methods, Aircraft, D. J. Hagemaier, A. H. Wendelbo, Jr., and Y. Bar-Cohen, No. 4, p 426

Corrosion in Aircraft Skins, General Application of Eddy Current Instruments to Detect and Measure, J. Pellicer, No. 12, p 1542

Cracks, Technique for Producing Test Plates with Fine Tight (Back to Basics), R. W. Kruzic and C. N. Sherlock, No. 9, p

Cross-Correlation Methods, Measurement of Ultrasonic Velocity Using Phase-Slope and, D. R. Hull, H. E. Kautz, and A. Vary, No. 11, p 1455

Determination of Thickness Variations by Measuring Film Densities on Two Adjacent Areas of a Radiograph (Back to Basics), P. Lahure, No. 4, p 354

Development of Boiler Inspection, 1866-1947, The (NDT-The Yesteryears), P. O. Moore, No. 7, p 800

Developments in Field X-Radiography, 1931-62 (NDT-The Yesteryears), H. Hovland, No. 11, p 1386

Discontinuities Hidden Word Puzzle Answer, W. J. Krizmanich, No. 1, p 80

Discontinuities, Ultrasonic Identification of Weld (Notes on Basics), R. Wappel, No. 9, p 1060

Discontinuity Sizes When Using Liquid Penetrant Testing, A Technique to Improve Validity in the Measurement of (Notes on Basics), L. C. Love, No. 9, p 1058

Dynamic Analysis, Thermoelastic Inspection of Layered Materials:, P. Cielo, X. Maldague, G. Rousset, and C. K. Jen,

No. 9, p 1111

EDM Notches and Real Fatigue Cracks in Flat Surfaces Using the Uniform Field Eddy Current Technique, Characterization of, E. Smith, No. 13, p 1640

Eddy Current Data, Template Matching-An Approach for the Machine Sorting of, S. D. Brown, No. 12, p 1553

Eddy Current Examination of Air Conditioner Tubing, Recent Developments in the, A. G. Julier, No. 13, p 1655

Eddy Current Characterization of Temper Embrittlement, Problems in the, W. G. Clark, Jr., and W. R. Junker, No. 12, p 1546

Eddy Current Examination of Seam Weld in Steel Sheath. Multifrequency, J. H. Smith, C. V. Dodd, and L. D. Chitwood, No. 12, p 1566

Eddy Current Hole Measurements, Automated, E. J. Chern,

No. 13, p 1644

Eddy Current Instrument for Measuring the Thickness of Zircaloy Cladding on Uranium under Conditions of Varying Lift-off, Two-Frequency, J. M. Prince, L. D. Reid, and D. L. Lessor, No. 12, p 1562

Eddy Current Instruments to Detect and Measure Corrosion in Aircraft Skins, General Application of, J. Pellicer, No.

Eddy Current Probe Model, Ferrite Core: Description and Verification, H. A. Sabbagh and S. N. Vernon, No. 2, p 184 Eddy Current Standard Depth of Penetration, D. J. Hage-

maier, No. 11, p 1458

Eddy Current System for the Quality Evaluation of Hot Rods, An On-Line, M. Cousin, No. 13, p 1649

Eddy Current Technique, Characterization of EDM Notches and Real Fatigue Cracks in Flat Surfaces Using the Uniform Field, E. Smith, No. 13, p 1640 Eddy Current Testing of Steel Tubing, 1929-60 (NDT-The

Yesteryears), W. A. Black, No. 12, p 1490

Eddy Current Testing of Steel Tubing, 1929-60, Eddy Current Testing of (NDT-The Yesteryears), W. A. Black, No. 12, p

Eddy Current Testing, The Present and Future of (Back to Basics), R. C. McMaster, No. 12, p 1512

Educational Growth of the NDT Technician, An Alternative for the (Robert B. Oliver Scholarship Paper), M. T. Getzke, No. 9, p 1090

Electromagnetic Testing, The Origins of (NDT-The Yesteryears), R. C. McMaster, No. 8, p 946

Embrittlement, Problems in the Eddy Current Characterization of Temper, W. G. Clark, Jr., and W. R. Junker, No. 12,

End-Plug Welds, Radiographic Detection of Tungsten Inclusions in Nuclear Fuel Pin, J. P. Panakkal, K. N. Chandresekharan, and J. K. Ghosh, No. 8, p 1005

Etching for Localized Penetrant Inspection (Notes on Basics), R. W. Engelbart, No. 9, p 1062

Examination of Carbon Steel Tubing (NDT Solution), S. Rowland, No. 11, p 1382

FM Radar for Inspecting Brick and Concrete Tunnels, O. Tranbarger, No. 10, p 1254

Fatigue Cracks in Flat Surfaces Using the Uniform Field Eddy Current Technique, Characterization of EDM Notches and Real, E. Smith, No. 13, p 1640

Feature Mapping for Anomaly Classification in Composite Materials, Physically Based Ultrasonic, J. B. Nestleroth, J. L. Rose, M. Bashyam, and K. Subramanian, No. 5, p 541

Ferrite Core Eddy Current Probe Model: Description and Verification, H. A. Sabbagh and S. N. Vernon, No. 2, p 184
Field X-Radiography, 1931-62, Developments in (NDT—The

Yesteryears), H. Hovland, No. 11, p 1386

Filament-Wound Graphite-Epoxy Laminate Coupons, Monitoring Acoustic Emission during Quasi-static Loading-Unloading Cycles of, J. Awerbuch, M. R. Gorman, and M. Madhukar, No. 6, p 754

Film Densities on Two Adjacent Areas of a Radiograph, Determination of Thickness Variations by Measuring (Back to

Basics), P. Lahure, No. 4, p 354

Filters for Use with Be-window X-ray Units, A Quick and Accurate Method for the Selection of (Back to Basics), D. McBride, No. 1, p 24

Fine Tight Cracks, Technique for Producing Test Plates with (Back to Basics), R. W. Kruzic and C. N. Sherlock, No. 9, p

Fishing for Fissures: Sources for the History of Rail Testing Cars, 1927-60 (NDT—The Yesteryears), J. M. Wickre, No.

Fissures, Fishing for: Sources for the History of Rail Testing Cars, 1927-60 (NDT—The Yesteryears), J. M. Wickre, No. 4, p 372

Fit, Ultrasonic Characterization of an Interference, G. Mott and B. J. Taszarek, No. 8, p 990

Flash X-Radiography in Ballistics, M. Held, No. 9, p 1104
 Flaw Detection Model, Pulsed Ultrasonic, S. Serabian and J.
 C. O'Callahan, No. 7, p 873

Flaw Detection, Analysis of the Ultrasonic Frequency Response for: A Technical Review (Technical Note), A. Sinclair, No. 1, p 105

Fracture Toughness in Type 403 Stainless Steel, On the Relation between Ultrasonic Attenuation and, F. Nadeau, J. F. Bussière, and G. Van Drunen, No. 1, p 101

Fracture of Three Naval Alloy Steels, Acoustic Emission during Deformation and, J. T. Glass and R. E. Green, Jr., No. 7, p 864

Gamma-Radiographer of Pipeline Welds, A (NDT—The Yesteryears), P. O. Moore, No. 9, p 1084

Gamma-Radiographic Inspection, The International System (SI) of Units in (Back to Basics), P. Lahure, No. 8, p 920; errata, No. 12, p 1484

Gamma-Radiography of High-Temperature and Corroded Objects (Technical Note), R. P. Krolicki, No. 8, p 1008 Gamma-Radiography: Technician Safety (Back to Basics), R.

L. Miller, Jr., No. 7, p 806

5

Gathering Lines, Near Real-Time Radiologic Corrosion Monitoring of Arctic Petroleum (Technical Note), P. W. Lott and J. Lott, No. 4, p 408

General Application of Eddy Current Instruments to Detect and Measure Corrosion in Aircraft Skins, J. Pellicer, No.

Graphite-Epoxy Laminate Coupons, Monitoring Acoustic Emission during Quasi-static Loading-Unloading Cycles of Filament-Wound, J. Awerbuch, M. R. Gorman, and M. Madhukar, No. 6, p 754

Head-Waves in Railroad Rail, Zero-Force Travel-Time Parameters for Ultrasonic (Technical Note), D. E. Bray and T.

Leon-Salamanca, No. 7, p 854

Hermit's Meditations—An Opinion Paper, R. P. Krolicki, No. 11, p 1408

High Temperature, Low-Melting Alloys Used as Ultrasonic Couplants at, M. A. Mahmoud, No. 2, p 196

High-Resolution Imaging of Microcracks in Composites, T. J. Moran, R. L. Crane, and R. J. Andrews, No. 5, p 536

High-Temperature and Corroded Objects, Gamma-Radiography of (Technical Note), R. P. Krolicki, No. 8, p 1008 Holography Provides a Third Perspective, No. 6, p 706

Homomorphic Signal Processing to Stress Wave Factor Analysis, Application of, H. Karagülle, J. H. Williams, Jr., and

S. S. Lee, No. 11, p 1446

Hot Rods, An On-Line Eddy Current System for the Quality Evaluation of, M. Cousin, No. 13, p 1649

Hydrogen Damage in Boiler Waterwall Tubes, Inspection for (NDT Solution), G. A. Lamping, No. 10, p 1164

IIW Block, Indirect Shear-Wave Distance Calibration Using the (Back to Basics), W. S. Burkle, No. 11, p 1374 Imaging of Microcracks in Composites, High-Resolution, T. J.

Moran, R. L. Crane, and R. J. Andrews, No. 5, p 536

Immersion Ultrasonic Testing, 1945-57, The Water's Fine: The

Origin of (NDT—The Yesteryears), P. O. Moore, No. 1, p 60 In Service, The Inspection of Wire Ropes: A Critical Review (Back to Basics and NDT Solution), H. R. Weischedel, No. 13, p 1592

In-Service Inspection System (ISIS) for Composites, Prototype of an, F. H. Chang, J. R. Bell, J. L. Brown, and R. W.

Haile, No. 9, p 1117

In-Service Nondestructive Inspection of Fighter and Attack Aircraft, R. J. Lord, No. 6, p 733

Inclusions in Nuclear Fuel Pin End-Plug Welds, Radiographic Detection of Tungsten, J. P. Panakkal, K. N. Chandresekharan, and J. K. Ghosh, No. 8, p 1005

Indirect Shear-Wave Distance Calibration Using the IIW Block (Back to Basics), W. S. Burkle, No. 11, p 1374

Influence of the Pulser on the Ultrasonic Spectrum: The Results of an Experiment, G. J. Posakony, No. 4, p 413
Ingenuity in X-Ray Recording Mediums (Notes on Basics), J.

A. Segel, No. 9, p 1060

Inspection for Hydrogen Damage in Boiler Waterwall Tubes (NDT Solution), G. A. Lamping, No. 10, p 1164

Inspection of Composite Rocket Motor Cases Using Acoustic Emission, D. J. McNally, No. 6, p 728

Inspection of Composites Using the Automated Ultrasonic Scanning System (AUSS), T. S. Jones, No. 6, p 746

Inspection of Corroded Materials (NDT Solution), A. S. Birring, No. 9, p 1054

Inspection of Wire Ropes in Service, The: A Critical Review (Back to Basics and NDT Solution), H. R. Weischedel, No. 13, p 1592

Interference Fit, Ultrasonic Characterization of an, G. Mott

and B. J. Taszarek, No. 8, p 990

International System (SI) of Units in Gamma-Radiographic Inspection, The (Back to Basics), P. Lahure, No. 8, p 920; errata, No. 12, p 1484

Lamb Wave Monitoring of Spot Welds, On-Line Ultrasonic, S. I. Rokhlin, R. J. Mayhan, and L. Adler, No. 7, p 879

Laminate Coupons, Monitoring Acoustic Emission during Quasi-static Loading-Unloading Cycles of Filament-Wound Graphite-Epoxy, J. Awerbuch, M. R. Gorman, and M. Madhukar, No. 6, p 754

Layered Joints, Ultrasonic Evaluation of the Adhesion Degree in, A. Pilarski, No. 6, p 765

Layered Materials, Thermoelastic Inspection of: Dynamic Analysis, P. Cielo, X. Maldague, G. Rousset, and C. K. Jen, No. 9, p 1111

Lead Screens, Save Your Old (Notes on Basics), J. Allgood, No. 9, p 1066

Leakage Field Method of Nondestructive Testing (Part 1), On the Way from the "Know-how" to the "Know-why" in the Magnetic, F. Förster, No. 10, p 1154

Leakage Field Method of Nondestructive Testing (Part 2), On the Way from the "Know-how" to the "Know-why" in the

Magnetic, F. Förster, No. 11, p 1398

Lift-off, Two-Frequency Eddy Current Instrument for Measuring the Thickness of Zircaloy Cladding on Uranium under Conditions of Varying, J. M. Prince, L. D. Reid, and D. L. Lessor, No. 12, p 1562

Liquid Penetrant Testing, A Technique to Improve Validity in the Measurement of Discontinuity Sizes When Using

(Notes on Basics), L. C. Love, No. 9, p 1058

Location System, A Simple and Effective Acoustic Emission Source (Technical Note), M. Barsky and N. N. Hsu, No. 1, p 108 Low-Melting Alloys Used as Ultrasonic Couplants at High Temperature, M. A. Mahmoud, No. 2, p 196

Low-energy Radiography of Composite Materials, A Brief Look at the (Back to Basics), G. L. Becker, No. 6, p 596

Machine Sorting of Eddy Current Data, Template Matching-An Approach for the, S. D. Brown, No. 12, p 1553 Machine Tool Industry, Acoustic Emission in the, S. Vahav-

iolos, No. 1, p 44

Magnetic Aids in Contact Ultrasonic Testing (Notes on Basics),

C. S. Hendzel, No. 9, p 1062

Magnetic Leakage Field Method of Nondestructive Testing (Part 1), On the Way from the "Know-how" to the "Knowwhy" in the, F. Förster, No. 10, p 1154

Magnetic Leakage Field Method of Nondestructive Testing (Part 2), On the Way from the "Know-how" to the "Know-

why" in the, F. Förster, No. 11, p 1398

Materials Science and Technology Experimental Methods, Treatise on (Book Review), G. V. Blessing, No. 4, p 359

Measurement of Stress with Surface Waves, D. Husson, S. D. Bennett, and G. S. Kino, No. 1, p 92

Measurement of Ultrasonic Velocity Using Phase-Slope and Cross-Correlation Methods, D. R. Hull, H. E. Kautz, and A. Vary, No. 11, p 1455

Microcracks in Composites, High-Resolution Imaging of, T. J. Moran, R. L. Crane, and R. J. Andrews, No. 5, p 536

Microradiography to Characterize Structural Ceramics, H.

Berger and D. Kupperman, No. 2, p 201

Monitoring Acoustic Emission during Quasi-static Loading-Unloading Cycles of Filament-Wound Graphite-Epoxy Laminate Coupons, J. Awerbuch, M. R. Gorman, and M. Madhukar, No. 6, p 754

Multifrequency Eddy Current Examination of Seam Weld in Steel Sheath, J. H. Smith, C. V. Dodd, and L. D. Chitwood,

No. 12, p 1566

Multifrequency, Think (Back to Basics), L. de la Pintiere, No. 2, p 152

NDT by RTD: The Start and Development of Nondestructive Testing in the Netherlands (NDT-The Yesteryears), A. de Sterke, No. 10, p 1168

Near Real-Time Radiologic Corrosion Monitoring of Arctic Petroleum Gathering Lines (Technical Note), P. W. Lott and

J. Lott, No. 4, p 408

Near Real-Time Radiologic Corrosion Monitoring of Arctic Petroleum Gathering Lines (Technical Note), P. W. Lott and J. Lott, No. 4, p 408

Necessity: The Mother of Acoustic Emission Testing (1961-72) (NDT-The Yesteryears), A. T. Green, No. 6, p 600

Netherlands, NDT by RTD: The Start and Development of Nondestructive Testing in the (NDT-The Yesteryears), A. de Sterke, No. 10, p 1168 Nondestructive Testing Sheds Light on Preserving America's

Past, C. M. Berntson, No. 10, p 1180

Nuclear Fuel Pin End-Plug Welds, Radiographic Detection of Tungsten Inclusions in, J. P. Panakkal, K. N. Chandresekharan, and J. K. Ghosh, No. 8, p 1005

On the Relation between Ultrasonic Attenuation and Fracture Toughness in Type 403 Stainless Steel, F. Nadeau, J.

F. Bussière, and G. Van Drunen, No. 1, p 101 On the Way from the "Know-how" to the "Know-why" in the Magnetic Leakage Field Method of Nondestructive Testing (Part 1), F. Förster, No. 10, p 1154

On the Way from the "Know-how" to the "Know-why" in the Magnetic Leakage Field Method of Nondestructive Testing (Part 2), F. Förster, No. 11, p 1398

On-Line Eddy Current System for the Quality Evaluation of Hot Rods, An, M. Cousin, No. 13, p 1649

On-Line Ultrasonic Lamb Wave Monitoring of Spot Welds, S. I. Rokhlin, R. J. Mayhan, and L. Adler, No. 7, p 879 Origins of Electromagnetic Testing, The (NDT—The Yester-

years), R. C. McMaster, No. 8, p 946

Parameters for Ultrasonic Head-Waves in Railroad Rail, Zero-Force Travel-Time (Technical Note), D. E. Bray and T. LeonSalamanca, No. 7, p 854

Penetrant Inspection, Etching for Localized (Notes on Basics), R. W. Engelbart, No. 9, p 1062

Penetrant Testing, A Technique to Improve Validity in the Measurement of Discontinuity Sizes When Using Liquid (Notes on Basics), L. C. Love, No. 9, p 1058

Penetration, Eddy Current Standard Depth of, D. J. Hagemaier, No. 11, p 1458

Personnel, Alternative Philosophy and Requirements for Certifying NDT Level III (Opinion Paper), J. C. Spanner, Sr., No. 11, p 1392

Petroleum Gathering Lines, Near Real-Time Radiologic Corrosion Monitoring of Arctic (Technical Note), P. W. Lott and

J. Lott, No. 4, p 408

Phase-Slope and Cross-Correlation Methods, Measurement of Ultrasonic Velocity Using, D. R. Hull, H. E. Kautz, and A. Vary, No. 11, p 1455

Physically Based Ultrasonic Feature Mapping for Anomaly Classification in Composite Materials, J. B. Nestleroth, J. L. Rose, M. Bashyam, and K. Subramanian, No. 5, p 541

Pipeline Welds, A Gamma-Radiographer of (NDT-The Yesteryears), P. O. Moore, No. 9, p 1084

Plasticity of 7075-T6 Aluminum, Amplitude Distribution Analysis for b-Value Relationship to the, A. L. Phillips, V. G. Godinez, and S. W. Stafford, No. 4, p 420

Plates with Fine Tight Cracks, Technique for Producing Test (Back to Basics), R. W. Kruzic and C. N. Sherlock, No. 9, p.

Present and Future of Eddy Current Testing, The (Back to

Basics), R. C. McMaster, No. 12, p 1512

Problems in the Eddy Current Characterization of Temper Embrittlement, W. G. Clark, Jr., and W. R. Junker, No. 12,

Promising Quantitative Nondestructive Evaluation Techniques for Composite Materials, J. H. Williams, Jr., and S. S. Lee, No. 5, p 561

Propagation Principles in Composite Material Inspection, Ultrasonic Wave (Back to Basics), J. L. Rose, No. 5, p 481

Prototype of an In-Service Inspection System (ISIS) for Composites, F. H. Chang, J. R. Bell, J. L. Brown, and R. W. Haile, No. 9, p 1117

Pulsed Ultrasonic Flaw Detection Model, S. Serabian and J. C. O'Callahan, No. 7, p 873

Pulser on the Ultrasonic Spectrum, Influence of the: The Results of an Experiment, G. J. Posakony, No. 4, p 413

Quantitative Nondestructive Evaluation Techniques for Composite Materials, Promising, J. H. Williams, Jr., and S. S. Lee, No. 5, p 561

Quick and Accurate Method for the Selection of Filters for Use with Be-window X-ray Units, A (Back to Basics), D.

McBride, No. 1, p 24

RTD, NDT by: The Start and Development of Nondestructive Testing in the Netherlands (NDT-The Yesteryears), A. de Sterke, No. 10, p 1168

Radar for Inspecting Brick and Concrete Tunnels, FM, O. Tranbarger, No. 10, p 1254

Radio/Microwave Tower Inspection Services (Notes on Basics), S. A. Viaclovsky and D. W. Knight, No. 9, p 1063

Radiograph, Determination of Thickness Variations by Measuring Film Densities on Two Adjacent Areas of a (Back to

Basics), P. Lahure, No. 4, p 354
Radiographic Detection of Tungsten Inclusions in Nuclear Fuel Pin End-Plug Welds, J. P. Panakkal, K. N. Chandresekharan, and J. K. Ghosh, No. 8, p 1005

Radiographic Inspection and Experimental and Theoretical Studies on Unsharpness and Sensitivity Requirements, Comparison of Codes and Standards for, H. Dölle and K. Lemmer, No. 2, p 188

Radiography Aids Renovation of Capitol, No. 10, p 1148 Radiography of Composite Materials, A Brief Look at the Low-energy (Back to Basics), G. L. Becker, No. 6, p 596 Radiography, Aerospace—The Last Three Decades (Lester Honor Lecture), D. J. Hagemaier, No. 10, p 1262

Radiologic Corrosion Monitoring of Arctic Petroleum Gathering Lines, Near Real-Time (Technical Note), P. W. Lott and J. Lott, No. 4, p 408

Rail Testing Cars, 1927-60, Fishing for Fissures: Sources for the History of (NDT—The Yesteryears), J. M. Wickre, No.

4, p 372

Railroad Rail, Zero-Force Travel-Time Parameters for Ultrasonic Head-Waves in (Technical Note), D. E. Bray and T. Leon-Salamanca, No. 7, p 854

Real-Time Radiologic Corrosion Monitoring of Arctic Petroleum Gathering Lines, Near (Technical Note), P. W. Lott

and J. Lott, No. 4, p 408

Recent Developments in the Eddy Current Examination of Air Conditioner Tubing, A. G. Julier, No. 13, p 1655 Recording Mediums, Ingenuity in X-Ray (Notes on Basics),

J. A. Segel, No. 9, p 1060

Reflection Coefficient in Precision Measurement of Trigonometric Relations for the Ultrasonic Inspection of Tubular Goods, The Role of the (NDT Solution), J. Johnson, No. 12, p 1488

Relief in X-Radiography, Studies on, P. R. Vaidya, B. Ghosh,

and R. Krishnan, No. 11, p 1443

Rocket Motor Case during Hydroproof, Acoustic Emission Monitoring of a Filament-Wound Composite (Technical Note), E. v. K. Hill and T. J. Lewis, No. 7, p 859

Rocket Motor Cases Using Acoustic Emission, Inspection of Composite, D. J. McNally, No. 6, p 728

Rods, An On-Line Eddy Current System for the Quality Evaluation of Hot, M. Cousin, No. 13, p 1649

Role of the Reflection Coefficient in Precision Measurement of Trigonometric Relations for the Ultrasonic Inspection of Tubular Goods, The (NDT Solution), J. Johnson, No. 12, p

Save Your Old Lead Screens (Notes on Basics), J. Allgood, No.

Screens, Save Your Old Lead (Notes on Basics), J. Allgood, No. 9, p 1066

Seam Weld in Steel Sheath, Multifrequency Eddy Current Examination of, J. H. Smith, C. V. Dodd, and L. D. Chit-

wood, No. 12, p 1566

Sensitivity Requirements, Comparison of Codes and Standards for Radiographic Inspection and Experimental and Theoretical Studies on Unsharpness and, H. Dölle and K. Lemmer, No. 2, p 188

Shear-Wave Distance Calibration Using the IIW Block, Indirect (Back to Basics), W. S. Burkle, No. 11, p 1374

Signal Processing to Stress Wave Factor Analysis, Application of Homomorphic, H. Karagülle, J. H. Williams, Jr., and S. S. Lee, No. 11, p 1446

Simple and Effective Acoustic Emission Source Location System, A (Technical Note), M. Barsky and N. N. Hsu, No. 1, p 108

Sizes When Using Liquid Penetrant Testing, A Technique to Improve Validity in the Measurement of Discontinuity (Notes on Basics), L. C. Love, No. 9, p 1058

Sorting of Eddy Current Data, Template Matching—An Approach for the Machine, S. D. Brown, No. 12, p 1553

Source Location System, A Simple and Effective Acoustic Emission (Technical Note), M. Barsky and N. N. Hsu, No. 1, p 108

Spot Welds, On-Line Ultrasonic Lamb Wave Monitoring of, S. I. Rokhlin, R. J. Mayhan, and L. Adler, No. 7, p 879

Stainless Steel, On the Relation between Ultrasonic Attenuation and Fracture Toughness in Type 403, F. Nadeau, J. F. Bussière, and G. Van Drunen, No. 1, p 101

Standard Depth of Penetration, Eddy Current, D. J. Hage-

maier, No. 11, p 1458

Standards for Radiographic Inspection and Experimental and Theoretical Studies on Unsharpness and Sensitivity Requirements, Comparison of Codes and, H. Dölle and K. Lemmer, No. 2, p 188 Steel Sheath, Multifrequency Eddy Current Examination of Seam Weld in, J. H. Smith, C. V. Dodd, and L. D. Chitwood, No. 12, p 1566

Steel Tubing, Examination of Carbon (NDT Solution), S. Rowland, No. 11, p 1382

Steel, On the Relation between Ultrasonic Attenuation and Fracture Toughness in Type 403 Stainless, F. Nadeau, J. F. Bussière, and G. Van Drunen, No. 1, p 101

Stress Wave Factor Analysis, Application of Homomorphic Signal Processing to, H. Karagülle, J. H. Williams, Jr., and

S. S. Lee, No. 11, p 1446

Stress with Surface Waves, Measurement of, D. Husson, S. D. Bennett, and G. S. Kino, No. 1, p 92

Studies on Relief in X-Radiography, P. R. Vaidya, B. Ghosh, and R. Krishnan, No. 11, p 1443

Surface Waves, Measurement of Stress with, D. Husson, S. D. Bennett, and G. S. Kino, No. 1, p 92

Technician Safety, Gamma-Radiography: (Back to Basics), R.

L. Miller, Jr., No. 7, p 806

Technician, An Alternative for the Educational Growth of the NDT (Robert B. Oliver Scholarship Paper), M. T. Getzke,

No. 9, p 1090 Technicians, Three New Calculator Programs for Ultrasonic (Notes on Basics), A. M. Wenzig, Jr., No. 9, p 1064

Technique for Producing Test Plates with Fine Tight Cracks (Back to Basics), R. W. Kruzic and C. N. Sherlock, No. 9, p 1044

Technique to Improve Validity in the Measurement of Discontinuity Sizes When Using Liquid Penetrant Testing, A (Notes on Basics), L. C. Love, No. 9, p 1058

Temper Embrittlement, Problems in the Eddy Current Characterization of, W. G. Clark, Jr., and W. R. Junker, No. 12, p 1546

Template Matching—An Approach for the Machine Sorting of Eddy Current Data, S. D. Brown, No. 12, p 1553

Test Plates with Fine Tight Cracks, Technique for Producing (Back to Basics), R. W. Kruzic and C. N. Sherlock, No. 9, p 1044

Thermoelastic Inspection of Layered Materials: Dynamic Analysis, P. Cielo, X. Maldague, G. Rousset, and C. K. Jen, No. 9, p 1111

Thermographic Methods for Nondestructive Evaluation of Composite Tubular Parts, Ultrasonic and, A. J. Rogovsky, No. 5, p 547

Thickness Variations by Measuring Film Densities on Two Adjacent Areas of a Radiograph, Determination of (Back to Basics), P. Lahure, No. 4, p 354

Thickness of Zircaloy Cladding on Uranium under Conditions of Varying Lift-off, Two-Frequency Eddy Current Instrument for Measuring the, J. M. Prince, L. D. Reid, and D. L. Lessor, No. 12, p 1562
Think Multifrequency (Back to Basics), L. de la Pintiere, No.

2, p 152

Three New Calculator Programs for Ultrasonic Technicians (Notes on Basics), A. M. Wenzig, Jr., No. 9, p 1064

Tower Inspection Services, Radio/Microwave (Notes on Basics), S. A. Viaclovsky and D. W. Knight, No. 9, p 1063

Travel-Time Parameters for Ultrasonic Head-Waves in Railroad Rail, Zero-Force (Technical Note), D. E. Bray and T. Leon-Salamanca, No. 7, p 854

Treatise on Materials Science and Technology Experimental Methods (Book Review), G. V. Blessing, No. 4, p 359

Trigonometric Relations for the Ultrasonic Inspection of Tubular Goods, The Role of the Reflection Coefficient in Precision Measurement of (NDT Solution), J. Johnson, No. 12, p 1488

Tubes, Inspection for Hydrogen Damage in Boiler Waterwall (NDT Solution), G. A. Lamping, No. 10, p 1164

Tubing, 1929-60, Eddy Current Testing of Steel (NDT—The Yesteryears), W. A. Black, No. 12, p 1490

Tubing, Examination of Carbon Steel (NDT Solution), S. Rowland, No. 11, p 1382

Tubing, Recent Developments in the Eddy Current Examination of Air Conditioner, A. G. Julier, No. 13, p 1655

Tubular Goods, The Role of the Reflection Coefficient in Precision Measurement of Trigonometric Relations for the Ultrasonic Inspection of (NDT Solution), J. Johnson, No. 12,

Tubular Parts, Ultrasonic and Thermographic Methods for Nondestructive Evaluation of Composite, A. J. Rogovsky,

No. 5, p 547

Tungsten Inclusions in Nuclear Fuel Pin End-Plug Welds, Radiographic Detection of, J. P. Panakkal, K. N. Chandresekharan, and J. K. Ghosh, No. 8, p 1005

Tunnels, FM Radar for Inspecting Brick and Concrete, O.

Tranbarger, No. 10, p 1254 Two-Frequency Eddy Current Instrument for Measuring the Thickness of Zircaloy Cladding on Uranium under Conditions of Varying Lift-off, J. M. Prince, L. D. Reid, and D. L. Lessor, No. 12, p 1562

Ultrasonic Attenuation and Fracture Toughness in Type 403 Stainless Steel, On the Relation between, F. Nadeau, J. F.

Bussière, and G. Van Drunen, No. 1, p 101

Ultrasonic Attenuation, E. R. Generazio, No. 8, p 995

Ultrasonic Characterization of an Interference Fit, G. Mott and B. J. Taszarek, No. 8, p 990

Ultrasonic Couplants at High Temperature, Low-Melting Alloys Used as, M. A. Mahmoud, No. 2, p 196

Ultrasonic Evaluation of the Adhesion Degree in Layered

Joints, A. Pilarski, No. 6, p 765

Ultrasonic Feature Mapping for Anomaly Classification in Composite Materials, Physically Based, J. B. Nestleroth, J. L. Rose, M. Bashyam, and K. Subramanian, No. 5, p 541 Ultrasonic Flaw Detection Model, Pulsed, S. Serabian and J.

C. O'Callahan, No. 7, p 873

Ultrasonic Frequency Response for Flaw Detection, Analysis of the: A Technical Review (Technical Note), A. Sinclair, No.

Ultrasonic Head-Waves in Railroad Rail, Zero-Force Travel-Time Parameters for (Technical Note), D. E. Bray and T. Leon-Salamanca, No. 7, p 854

Ultrasonic Identification of Weld Discontinuities (Notes on

Basics), R. Wappel, No. 9, p 1060

Ultrasonic Inspection of Carbon-Epoxy Composites, D. J. Ha-

gemaier and R. H. Fassbender, No. 5, p 556

Ultrasonic Inspection of Tubular Goods, The Role of the Reflection Coefficient in Precision Measurement of Trigonometric Relations for the (NDT Solution), J. Johnson, No.

Ultrasonic Lamb Wave Monitoring of Spot Welds, On-Line, S. I. Rokhlin, R. J. Mayhan, and L. Adler, No. 7, p 879 Ultrasonic Scanning System (AUSS), Inspection of Compos-

ites Using the Automated, T. S. Jones, No. 6, p 746 Ultrasonic Spectrum, Influence of the Pulser on the: The Results of an Experiment, G. J. Posakony, No. 4, p 413

Ultrasonic Technicians, Three New Calculator Programs for (Notes on Basics), A. M. Wenzig, Jr., No. 9, p 1064

Ultrasonic Testing; 1945-57, The Water's Fine: The Origin of Immersion (NDT-The Yesteryears), P. O. Moore, No. 1, p

Ultrasonic Testing, Magnetic Aids in Contact (Notes on Basics), C. S. Hendzel, No. 9, p 1062

Ultrasonic Velocity Using Phase-Slope and Cross-Correlation Methods, Measurement of, D. R. Hull, H. E. Kautz, and A. Vary, No. 11, p 1455

Ultrasonic Wave Propagation Principles in Composite Material Inspection (Back to Basics), J. L. Rose, No. 5, p 481 Ultrasonic and Thermographic Methods for Nondestructive Evaluation of Composite Tubular Parts, A. J. Rogovsky, No.

Ultrasonics for Evaluation of Composite Material Response, Analytical, E. G. Henneke, II, and J. C. Duke, Jr., No. 6, p.

Units in Gamma-Radiographic Inspection, The International System (SI) of (Back to Basics), P. Lahure, No. 8, p 920;

errata, No. 12, p 1484

Unsharpness and Sensitivity Requirements, Comparison of Codes and Standards for Radiographic Inspection and Experimental and Theoretical Studies on, H. Dölle and K. Lemmer, No. 2, p 188 Validity in the Measurement of Discontinuity Sizes When

Using Liquid Penetrant Testing, A Technique to Improve

(Notes on Basics), L. C. Love, No. 9, p 1058

Velocity Using Phase-Slope and Cross-Correlation Methods, Measurement of Ultrasonic, D. R. Hull, H. E. Kautz, and A. Vary, No. 11, p 1455

Vision Testing, Color-Who Needs It? (Back to Basics), W. H.

Bailey, No. 10, p 1194 Water's Fine: The Origin of Immersion Ultrasonic Testing, 1945-57, The (NDT-The Yesteryears), P. O. Moore, No. 1,

Wave Factor Analysis, Application of Homomorphic Signal Processing to Stress, H. Karagülle, J. H. Williams, Jr., and

S. S. Lee, No. 11, p 1446

Wave Propagation Principles in Composite Material Inspection, Ultrasonic (Back to Basics), J. L. Rose, No. 5, p 481 Waves, Measurement of Stress with Surface, D. Husson, S. D.

Bennett, and G. S. Kino, No. 1, p 92

Weld Discontinuities, Ultrasonic Identification of (Notes on Basics), R. Wappel, No. 9, p 1060

Weld in Steel Sheath, Multifrequency Eddy Current Examination of Seam, J. H. Smith, C. V. Dodd, and L. D. Chitwood, No. 12, p 1566

Welds, A Gamma-Radiographer of Pipeline (NDT-The Yesteryears), P. O. Moore, No. 9, p 1084

Welds, On-Line Ultrasonic Lamb Wave Monitoring of Spot, S. I. Rokhlin, R. J. Mayhan, and L. Adler, No. 7, p 879

Welds, Radiographic Detection of Tungsten Inclusions in Nuclear Fuel Pin End-Plug, J. P. Panakkal, K. N. Chandresekharan, and J. K. Ghosh, No. 8, p 1005

Wire Ropes in Service, The Inspection of: A Critical Review (Back to Basics and NDT Solution), H. R. Weischedel, No.

13, p 1592

X-Radiography in Ballistics, Flash, M. Held, No. 9, p 1104 X-Radiography, Studies on Relief in, P. R. Vaidya, B. Ghosh, and R. Krishnan, No. 11, p 1443

X-Ray Recording Mediums, Ingenuity in (Notes on Basics), J. A. Segel, No. 9, p 1060

X-ray Units, A Quick and Accurate Method for the Selection of Filters for Use with Be-window (Back to Basics), D. McBride, No. 1, p 24

Zero-Force Travel-Time Parameters for Ultrasonic Head-Waves in Railroad Rail (Technical Note), D. E. Bray and T. Leon-

Salamanca, No. 7, p 854

Zircaloy Cladding on Uranium under Conditions of Varying Lift-off, Two-Frequency Eddy Current Instrument for Measuring the Thickness of, J. M. Prince, L. D. Reid, and D. L. Lessor, No. 12, p 1562

## **Author Index for** Volume 43, **Materials Evaluation**

Adler, L. (see Rokhlin, S. I.), No. 7, p 879

Allgood, J., Save Your Old Lead Screens (Notes on Basics), No. 9, p 1066

Andrews, R. J. (see Moran, T. J.), No. 5, p 536

Awerbuch, J., M. R. Gorman, and M. Madhukar, Monitoring Acoustic Emission during Quasi-static Loading-Unloading Cycles of Filament-Wound Graphite-Epoxy Laminate Coupons, No. 6, p 754

Bailey, W. H., Color Vision Testing-Who Needs It? (Back to Basics), No. 10, p 1194

Bar-Cohen, Y. (see Hagemaier, D. J.), No. 4, p 426

Barsky, M., and N. N. Hsu, A Simple and Effective Acoustic Emission Source Location System (Technical Note), No. 1,

Bashyam, M. (see Nestleroth, J. B.), No. 5, p 541

Becker, G. L., A Brief Look at the Low-energy Radiography of Composite Materials (Back to Basics), No. 6, p 596 Bell, J. R. (see Chang, F. H.), No. 9, p 1117

Bennett, S. D. (see Husson, D.), No. 1, p 92

Berger, H., and D. Kupperman, Microradiography to Characterize Structural Ceramics, No. 2, p 201

Berntson, C. M., Nondestructive Testing Sheds Light on Preserving America's Past, No. 10, p 1180

Birring, A. S., Inspection of Corroded Materials (NDT Solution), No. 9, p 1054

Black, W. A., Eddy Current Testing of Steel Tubing, 1929-60 (NDT-The Yesteryears), No. 12, p 1490

Blessing, G. V., Treatise on Materials Science and Technology Experimental Methods (Book Review), No. 4, p 359

Bray, D. E., and T. Leon-Salamanca, Zero-Force Travel-Time Parameters for Ultrasonic Head-Waves in Railroad Rail (Technical Note), No. 7, p 854 Brown, J. L. (see Chang, F. H.), No. 9, p 1117

Brown, S. D., Template Matching-An Approach for the Machine Sorting of Eddy Current Data, No. 12, p 1553

Burkle, W. S., Indirect Shear-Wave Distance Calibration Using the IIW Block (Back to Basics), No. 11, p 1374 Bussière, J. F. (see Nadeau, F.), No. 1, p 101

Chandresekharan, K. N. (see Panakkal, J. P.), No. 8, p 1005 Chang, F. H., J. R. Bell, J. L. Brown, and R. W. Haile, Prototype of an In-Service Inspection System (ISIS) for Composites, No. 9, p 1117

Chern, E. J., Automated Eddy Current Hole Measurements, No. 13, p 1644

Chitwood, L. D. (see J. H. Smith), No. 12, p 1566

Cielo, P., X. Maldague, G. Rousset, and C. K. Jen, Thermoelastic Inspection of Layered Materials: Dynamic Analysis, No. 9, p 1111

Clark, W. G., Jr., and W. R. Junker, Problems in the Eddy Current Characterization of Temper Embrittlement, No. 12,

Cousin, M., An On-Line Eddy Current System for the Quality Evaluation of Hot Rods, No. 13, p 1649 Crane, R. L. (see Moran, T. J.), No. 5, p 536

de la Pintiere, L., Think Multifrequency (Back to Basics), No.

de Sterke, A., NDT by RTD: The Start and Development of Nondestructive Testing in the Netherlands (NDT-The Yesteryears), No. 10, p 1168

Dodd, C. V. (see J. H. Smith), No. 12, p 1566

Dölle, H., and K. Lemmer, Comparison of Codes and Standards for Radiographic Inspection and Experimental and Theoretical Studies on Unsharpness and Sensitivity Requirements, No. 2, p 188 [see also No. 13, p 1590]

Duke, J. C., Jr. (see Henneke, E. G., II), No. 6, p 740

Engelbart, R. W., Etching for Localized Penetrant Inspection (Notes on Basics), No. 9, p 1062

Fassbender, R. H. (see Hagemaier, D. J.), No. 5, p 556

Förster, F., On the Way from the "Know-how" to the "Knowwhy" in the Magnetic Leakage Field Method of Nonde-

structive Testing (Part 1), No. 10, p 1154
\_\_\_\_\_, On the Way from the "Know-how" to the "Know-why" in the Magnetic Leakage Field Method of Nondestructive

Testing (Part 2), No. 11, p 1398

Generazio, E. R., The Role of the Reflection Coefficient in Precision Measurement of Ultrasonic Attenuation, No. 8,

Getzke, M. T., An Alternative for the Educational Growth of the NDT Technician (Robert B. Oliver Scholarship Paper), No. 9, p 1090

Ghosh, B. (see Vaidya, P. R.), No. 11, p 1443 Ghosh, J. K. (see Panakkal, J. P.), No. 8, p 1005

Glass, J. T., and R. E. Green, Jr., Acoustic Emission during Deformation and Fracture of Three Naval Alloy Steels, No. 7, p 864

Godinez, V. G. (see Phillips, A. L.), No. 4, p 420 Gorman, M. R. (see Awerbuch, J.), No. 6, p 754

Green, A. T., Necessity: The Mother of Acoustic Emission Testing (1961-72) (NDT—The Yesteryears), No. 6, p 600

Green, R. E., Jr. (see Glass, J. T.), No. 7, p 864 Hagemaier, D. J., Aerospace Radiography-The Last Three

Decades (Lester Honor Lecture), No. 10, p 1262 Eddy Current Standard Depth of Penetration, No. 11,

, and R. H. Fassbender, Ultrasonic Inspection of Carbon-

Epoxy Composites, No. 5, p 556

A. H. Wendelbo, Jr., and Y. Bar-Cohen, Aircraft Corrosion and Detection Methods, No. 4, p 426

Haile, R. W. (see Chang, F. H.), No. 9, p 1117

Held, M., Flash X-Radiography in Ballistics, No. 9, p 1104 Hendzel, C. S., Magnetic Aids in Contact Ultrasonic Testing (Notes on Basics), No. 9, p 1062

Henneke, E. G., II, and J. C. Duke, Jr., Analytical Ultrasonics for Evaluation of Composite Material Response, No. 6, p

Hill, E. v. K., and T. J. Lewis, Acoustic Emission Monitoring of a Filament-Wound Composite Rocket Motor Case during Hydroproof (Technical Note), No. 7, p 859

Hovland, H., Developments in Field X-Radiography, 1931-62 (NDT-The Yesteryears), No. 11, p 1386

Hsu, N. N. (see Barsky, M.), No. 1, p 108

Hull, D. R., H. E. Kautz, and A. Vary, Measurement of Ultrasonic Velocity Using Phase-Slope and Cross-Correlation Methods, No. 11, p 1455

Husson, D., S. D. Bennett, and G. S. Kino, Measurement of Stress with Surface Waves, No. 1, p 92

Iddings, F. A., Composites (Back to Basics), No. 5, p 480

Jen, C. K. (see Cielo, P.), No. 9, p 1111

Johnson, J., "Trigonometric Relations for the Ultrasonic Inspection of Tubular Goods" (NDT Solution), No. 12, p 1488 Jones, T. S., Inspection of Composites Using the Automated Ultrasonic Scanning System (AUSS), No. 6, p 746

Julier, A. G., Recent Developments in the Eddy Current Examination of Air Conditioner Tubing, No. 13, p 1655 Junker, W. R. (see Clark, W. G., Jr.), No. 12, p 1546

Karagülle, H., J. H. Williams, Jr., and S. S. Lee, Application of Homomorphic Signal Processing to Stress Wave Factor Analysis, No. 11, p 1446

Kautz, H. E. (see Hull, D. R.), No. 11, p 1455

Kino, G. S. (see Husson, D.), No. 1, p 92 Knight, D. W. (see Viaclovsky, S. A.), No. 9, p 1063

Krishnan, R. (see Vaidya, P. R.), No. 11, p 1443 Krizmanich, W. J., Discontinuities Hidden Word Puzzle Answer, No. 1, p 80

Krolicki, R. P., Gamma-Radiography of High-Temperature and Corroded Objects (Technical Note), No. 8, p 1008

Hermit's Meditations-An Opinion Paper, No. 11, p 1408

Kruzic, R. W., and C. N. Sherlock, Technique for Producing Test Plates with Fine Tight Cracks (Back to Basics), No. 9,

Kupperman, D. (see Berger, H.), No. 2, p 201

Lahure, P., Determination of Thickness Variations by Measuring Film Densities on Two Adjacent Areas of a Radiograph (Back to Basics), No. 4, p 354; erratum, No. 7, p 844 The International System (SI) of Units in Gamma-

Radiographic Inspection (Back to Basics), No. 8, p 920; er-

rata, No. 12, p 1484

Lamping, G. A., Inspection for Hydrogen Damage in Boiler Waterwall Tubes (NDT Solution), No. 10, p 1164 Lee, S. S. (see Williams, J. H., Jr.), No. 5, p 561

(see Karagülle, H.), No. 11, p 1446

Lemmer, K. (see Dölle, H.), No. 2, p 188

Leon-Salamanca, T. (see Bray, D. E.), No. 7, p 854 Lessor, D. L. (see Prince, J. M.), No. 12, p 1562 Lewis, T. J. (see Hill, E. v. K.), No. 7, p 859

Lord, R. J., In-Service Nondestructive Inspection of Fighter and Attack Aircraft, No. 6, p 733

Lott, J. (see Lott, P. W.), No. 4, p 408

Lott, P. W., and J. Lott, Near Real-Time Radiologic Corrosion Monitoring of Arctic Petroleum Gathering Lines (Technical

Note), No. 4, p 408 Love, L. C., A Technique to Improve Validity in the Measurement of Discontinuity Sizes When Using Liquid Penetrant Testing (Notes on Basics), No. 9, p 1058

Madhukar, M. (see Awerbuch, J.), No. 6, p 754

Mahmoud, M. A., Low-Melting Alloys Used as Ultrasonic Couplants at High Temperature, No. 2, p 196

Maldague, X. (see Cielo, P.), No. 9, p 1111 Mayhan, R. J. (see Rokhlin, S. I.), No. 7, p 879

McBride, D., A Quick and Accurate Method for the Selection of Filters for Use with Be-window X-ray Units (Back to Basics), No. 1, p 24 McGuire, R., ASNT's Role in Certification, No. 5, p 492

McMaster, R. C., The Origins of Electromagnetic Testing (NDT-The Yesteryears), No. 8, p 946

The Present and Future of Eddy Current Testing (Back

to Basics), No. 12, p 1512 McNally, D. J., Inspection of Composite Rocket Motor Cases

Using Acoustic Emission, No. 6, p 728 Miller, R. L., Jr., Gamma-Radiography: Technician Safety (Back

to Basics), No. 7, p 806

Moore, P. O., The Development of Boiler Inspection, 1866-1947 (NDT-The Yesteryears), No. 7, p 800

A Gamma-Radiographer of Pipeline Welds (NDT-The Yesteryears), No. 9, p 1084

The Water's Fine: The Origin of Immersion Ultrasonic

Testing, 1945-57 (NDT-The Yesteryears), No. 1, p 60 Moran, T. J., R. L. Crane, and R. J. Andrews, High-Resolution Imaging of Microcracks in Composites, No. 5, p 536

Mott, G., and B. J. Taszarek, Ultrasonic Characterization of an Interference Fit, No. 8, p 990

Nadeau, F., J. F. Bussière, and G. Van Drunen, On the Relation between Ultrasonic Attenuation and Fracture Toughness in Type 403 Stainless Steel, No. 1, p 101

Nestleroth, J. B., J. L. Rose, M. Bashyam, and K. Subramanian, Physically Based Ultrasonic Feature Mapping for Anomaly Classification in Composite Materials, No. 5, p 541

O'Callahan, J. C. (see Serabian, S.), No. 7, p 873

Panakkal, J. P., K. N. Chandresekharan, and J. K. Ghosh, Radiographic Detection of Tungsten Inclusions in Nuclear Fuel Pin End-Plug Welds, No. 8, p 1005

Pellicer, J., General Application of Eddy Current Instruments to Detect and Measure Corrosion in Aircraft Skins, No. 12, p 1542

Phillips, A. L., V. G. Godinez, and S. W. Stafford, Amplitude Distribution Analysis for b-Value Relationship to the Plasticity of 7075-T6 Aluminum, No. 4, p 420

Pilarski, A., Ultrasonic Evaluation of the Adhesion Degree in Layered Joints, No. 6, p 765

Posakony, G. J., Influence of the Pulser on the Ultrasonic Spectrum: The Results of an Experiment, No. 4, p 413

Prince, J. M., L. D. Reid, and D. L. Lessor, Two-Frequency Eddy Current Instrument for Measuring the Thickness of Zircaloy Cladding on Uranium under Conditions of Varying Lift-off, No. 12, p 1562

Reid, L. D. (see Prince, J. M.), No. 12, p 1562

Rogovsky, A. J., Ultrasonic and Thermographic Methods for Nondestructive Evaluation of Composite Tubular Parts, No. 5, p 547

Rokhlin, S. I., R. J. Mayhan, and L. Adler, On-Line Ultrasonic Lamb Wave Monitoring of Spot Welds, No. 7, p 879

Rose, J. L., Ultrasonic Wave Propagation Principles in Composite Material Inspection (Back to Basics), No. 5, p 481

(see Nestleroth, J. B.), No. 5, p 541 Rousset, G. (see Cielo, P.), No. 9, p 1111

Rowland, S., Examination of Carbon Steel Tubing (NDT Solution), No. 11, p 1382

Sabbagh, H. A., and S. N. Vernon, Ferrite Core Eddy Current Probe Model: Description and Verification, No. 2, p 184

Segel, J. A., Ingenuity in X-Ray Recording Mediums (Notes on Basics), No. 9, p 1060

Serabian, S., and J. C. O'Callahan, Pulsed Ultrasonic Flaw Detection Model, No. 7, p 873

Sherlock, C. N. (see Kruzic, R. W.), No. 9, p 1044

Sinclair, A., Analysis of the Ultrasonic Frequency Response for Flaw Detection: A Technical Review (Technical Note),

Smith, E., Characterization of EDM Notches and Real Fatigue Cracks in Flat Surfaces Using the Uniform Field Eddy Cur-

rent Technique, No. 13, p 1640

Smith, J. H., C. V. Dodd, and L. D. Chitwood, Multifrequency Eddy Current Examination of Seam Weld in Steel Sheath, No. 12, p 1566

Spanner, J. C., Sr., Alternative Philosophy and Requirements for Certifying NDT Level III Personnel (Opinion Paper), No. 11, p 1392

Stafford, S. W. (see Phillips, A. L.), No. 4, p 420 Subramanian, K. (see Nestleroth, J. B.), No. 5, p 541

Taszarek, B. J. (see Mott, G.), No. 8, p 990

Tranbarger, O., FM Radar for Inspecting Brick and Concrete Tunnels, No. 10, p 1254

Vahaviolos, S., Acoustic Emission in the Machine Tool Industry, No. 1, p 44

Vaidya, P. R., B. Ghosh, and R. Krishnan, Studies on Relief in X-Radiography, No. 11, p 1443

Van Drunen, G. (see Nadeau, F.), No. 1, p 101 Vary, A. (see D. R. Hull), No. 11, p 1455

Vernon, S. N. (see Sabbagh, H. A.), No. 2, p 184

Viaclovsky, S. A., and D. W. Knight, Radio/Microwave Tower Inspection Services (Notes on Basics), No. 9, p 1063 Wappel, R., Ultrasonic Identification of Weld Discontinuities

(Notes on Basics), No. 9, p 1060

Weischedel, H. R., The Inspection of Wire Ropes in Service (Back to Basics/NDT Solution), No. 13, p 1592

Wendelbo, Jr., A. H. (see Hagemaier, D. J.), No. 4, p 426 Wenzig, A. M., Jr., Three New Calculator Programs for Ultrasonic Technicians (Notes on Basics), No. 9, p 1064

Wheeler, G., Certification around the World, No. 10, p 1198 Wickre, J. M., Fishing for Fissures: Sources for the History of Rail Testing Cars, 1927-60 (NDT-The Yesteryears), No. 4, p 372

Williams, J. H., Jr., and S. S. Lee, Promising Quantitative Nondestructive Evaluation Techniques for Composite Materials, No. 5, p 561

(see Karagülle, H.), No. 11, p 1446